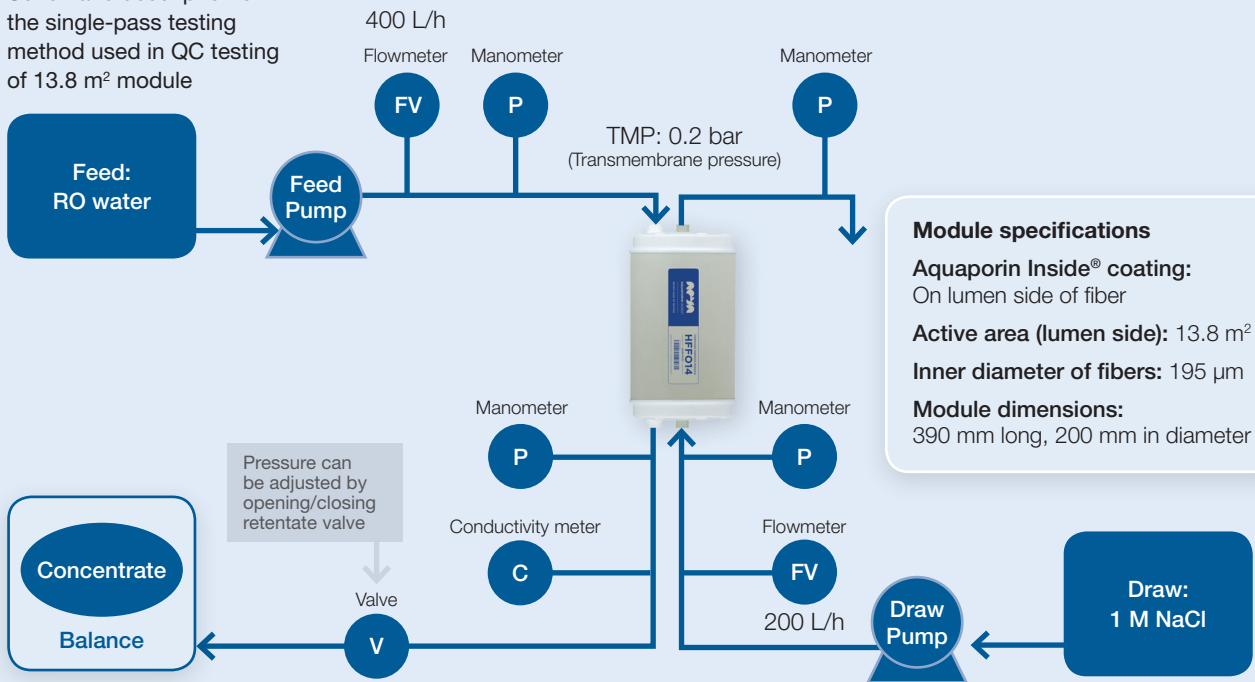


Aquaporin Inside® HFFO14 Standard Test Setup

Schematic description of the single-pass testing method used in QC testing of 13.8 m² module



The flow rate of the concentrate was measured on the balance and abstracted from the flow rate of the feed in order to calculate the water flux through the membrane according to Eq. 1.

$$J_w = \frac{\dot{Q}_{Feed} - \dot{Q}_{Concentrate}}{A} \quad (1)$$

where:

- J_w is water flux (L/m²h)
- \dot{Q}_{Feed} is flow rate of feed (L/h)
- $\dot{Q}_{Concentrate}$ is flow rate of concentrate (L/h)
- A is membrane area (m²)

* In order to maintain the water flux and reverse salt flux between the experiments, it is strongly recommended to flush the FO module with DI water after use. We propose to flush the module with DI water for 5 min from the feed and draw side at 150 L/h and subsequently for 30 min only from the feed side at 150 L/h.

Conductivity of the concentrate is measured in order to calculate the reverse salt flux according to the Eq. 2.

$$J_s = \frac{\dot{Q}_{Concentrate}}{A} \kappa B \quad (2)$$

where:

- J_s is reverse salt flux (g/m²h)
- $\dot{Q}_{Concentrate}$ is flow rate of concentrate (L/h)
- A is membrane area (m²)
- κ is conductivity (μS/cm)
- B is proportionality coefficient (0,5362 μS/cm per 1 mg/L of NaCl)

Aquaporin A/S
Nymøllevvej 78
2800 Kongens Lyngby
Denmark

Phone: +45 8230 3082
sales@aquaporin.com
www.aquaporin.com

Aquaporin Asia Pte Ltd
1 Cleantech Loop, #02-14
Cleantech One
Singapore 637141

Phone: +65 6268 6343
sales@aquaporin.asia

Aquapoten Company Ltd.
12A Shougang International Trade Tower
No. 60 Xizhimen North Street
Haidian District, Beijing, 100082, China

Phone: +86-10-52408461
business@aquapoten.com
www.aquapoten.com